



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Michael R. Pence*  
Governor

*Thomas W. Easterly*  
Commissioner

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[www.idem.IN.gov](http://www.idem.IN.gov)  
June 19, 2013

**VIA CERTIFIED MAIL** 91 7190 0005 2710 0028 0251

Ms. Ann Nelson  
Peabody Midwest Mining, LLC  
7100 Eagle Crest Boulevard, Suite 100  
Evansville, IN 47715

Dear Ms. Nelson:

Re: Section 401 Water Quality Certification  
Project: Peabody Midwest Mining-Bear  
Run Amendment 5  
IDEM No.: 2011-487-DDC-A  
COE No.: LRL-2011-1117-gjd  
County: Sullivan

Office of Water Quality staff has reviewed your application for Section 401 Water Quality Certification dated September 16, 2011, and received September 19, 2011. According to the application, you propose to mine approximately 7,252 acres of land to recover coal reserves. Upon completion of coal extraction, the area will be returned to the approximate original contours in accordance with the approved Surface Mining Control and Reclamation Act (SMCRA) Permit Number S-00256-5. The mining activities will adversely impact approximately 256,930 linear feet of ephemeral streams, 252,261 linear feet of intermittent streams, 1,241 linear feet of perennial streams, 85.18 acres of forested wetlands, 1.49 acres of scrub-shrub wetlands, 42.19 acres of emergent wetlands, 18.60 acres of palustrine unconsolidated bottom, and 240.76 acres of open waters.

You will mitigate for the adverse impacts to aquatic resources by establishing both onsite and offsite wetland and stream mitigation. On-site you will create 128,467 linear feet of ephemeral streams, 252,261 linear feet of intermittent streams, 1,241 linear feet of perennial streams, and 348.72 acres of forested wetlands. Off-site mitigation you will reactivate 14,450 linear feet of the paleochannel of Busseron Creek, enhance 11,056 linear feet of Busseron Creek, and create 3,500 linear feet of tributaries to the paleochannel and create 207 acres of forested wetlands. You will also create 27 acres of upland forested buffer at the offsite mitigation area.

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The project is located in Sections 16, 17, 20, 21, 28, 29, 32, 33, & 34, Township 7 North, Range 8 West, Dugger USGS Quad; Sections 3, 4, 5, 8, 9, 10, 15, 16, 17, 21, 22, 26, & 27, Township 6 North, Range 8 West, Bucktown USGS Quad, in Sullivan County.

Based on available information, it is the judgment of this office that the proposed project will comply with the applicable provisions of 327 IAC 2 and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if the recipient of the certification complies with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification for the project described in your application received September 19, 2011, and final modifications received June 4, 2013, and June 11, 2013. Any changes in project design or scope not detailed in the application described above or modified by the conditions below are not authorized by this certification.

**GENERAL CONDITIONS:**

The recipient of the certification shall:

- 1) Deposit any dredged material in accordance with the coal mining permit and reclamation plan approved under IC 14-34.
- 2) Install erosion control methods prior to any disturbance in the affected watershed in accordance with 312 IAC 25-6-16 and 17 as required by the coal mining permit issued under IC 14-34.
- 3) Clearly mark the coal mining permit boundaries at the project site in accordance with the requirements of 312 IAC 25-6-6.
- 4) Allow the commissioner or an authorized representative of the commissioner (including an authorized contractor), upon the presentation of credentials at the mine office to ensure compliance with the federal Mine Safety and Health Act and company mine hazard training requirements,;
  - a) to enter the property of the recipient of the certification;
  - b) to have access to and copy at reasonable times any records that must be kept under the conditions of this certification;
  - c) to inspect, at reasonable times, any monitoring or operational equipment or method; collection, treatment, pollution management or discharge facility or device; practices required by this certification; and any mitigation wetland site;
  - d) to sample or monitor any discharge of pollutants or any mitigation wetland site.

**PROJECT SPECIFIC CONDITIONS:**

The recipient of the certification shall:

- 1) Implement the mitigation plans as described in the revised applications received June 4, 2013, and June 11, 2013, (referred to collectively hereinafter as the "mitigation plan"), and as modified by the conditions of this certification. The wetland(s) created or restored pursuant to the mitigation plan shall be referred to hereinafter as the "mitigation", "mitigation stream", "mitigation streams", "mitigation wetland" or "mitigation wetlands."
- 2) Clearly identify all mitigation wetlands and streams on the Post-Mine Land Use Map required by 312 IAC 25-4-48. If mitigation wetlands are adjacent to existing wetlands, install survey markers to identify the boundaries of the mitigation wetland. Provide IDEM with a copy of the Environmental Resources Map required by IC 14-34, identifying the location of Waters of the U.S.
- 3) Monitor the mitigation wetland annually to determine whether it is achieving the success criteria contained in Project Specific Conditions No. 7, 8, 9 & 10, of this certification in preparation for the release of the monitoring conditions of this certification in accordance with Project Specific Condition 5. Complete corrective actions as necessary to ensure the mitigation wetland will achieve the success criteria within the required period to allow the permanent release of the project from future monitoring requirements under this certification. Describe in the monitoring reports any corrective actions taken to ensure success of the mitigation site.
- 4) Submit a copy of the Section 404 monitoring reports as required by the Army Corps of Engineers to IDEM. A copy of the reports should be submitted to IDEM on the same annual schedule the required submissions are made to the Army Corp of Engineers each year until released from monitoring by IDEM. The report shall contain a statement indicating whether the wetlands and streams are achieving the success criteria outlined in Project Specified Conditions No. 7, 8, 9 & 10. The reports shall include the IDEM identification number and all information required by the Army Corps of Engineers.
- 5) Monitor the mitigation wetland for a minimum period of ten (10) years. In order to be released from monitoring, the recipient of the certification must demonstrate to IDEM, through monitoring reports required in Project Specific Condition No. 4, that the success criteria specified in Project Specific Conditions No. 7, 8, 9 & 10, have been met for two (2) consecutive years prior to the release of the performance bond required by 312 IAC 25-5. Once the recipient of the certification believes they

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have met this requirement, they may submit a proposed final monitoring report to IDEM, suspend monitoring, and consider the success criteria satisfied unless notified otherwise by IDEM within 90 growing season (May 1 to October 31) days of receipt of the proposed final monitoring report. If IDEM receives a final monitoring report after August 2<sup>nd</sup> in any calendar year, the 90 growing season days continue into the following year until 90 growing season days have passed after submission of the proposed final monitoring report. If IDEM determines that the success criteria have not been met, then IDEM shall, within 90 growing season days of the receipt of the proposed final monitoring report, notify the recipient of the certification of their determination and the reasons thereof and the recipient of the certification shall resume monitoring. This notification is considered an agency determination and all rights under IC 4-21.5 are applicable.

- 6) Include a delineation of all mitigation wetlands in the final monitoring report. The delineation must be conducted on-site using the hydrology and vegetation parameters from the United States Army Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1 (January 1987). The delineation report must include data sheets and a survey, map, or drawing with area measurements (in acres) of all mitigation wetland boundaries.
- 7) Ensure that the onsite mitigation wetlands meets all of the following success criteria for two consecutive years prior to the release of the performance bond required by 312 IAC 25-5:
  - a) The onsite mitigation wetlands consist of 348.72 acres of forested wetland.
  - b) The final tree success standard for the forested wetland mitigation will be a minimum of 50% survivability of the initial planting rate of 300 trees per acre (~150 trees/acre). At the release of wetland monitoring, 50% of the surviving 50% initial planting rate (~75 trees/acre) will have a minimum height of 15'. The initial plantings will consist of a minimum of 5 native species known to occur in southwestern Indiana to assure species diversity.
  - c) No one species shall make up more than 25% of the surviving plant stock.
  - d) All vegetation present in the wetland mitigation area will meet the current federal delineation manual for hydrophetic vegetation.
  - e) The soils in the wetland mitigation areas must exhibit hydric conditions that must be sufficient to meet the criteria of wetland determination per the 1987 U. S. Army Corps of Engineers Wetland Delineation Manual and the Midwest Regional Supplement.
  - f) The mitigation wetlands must have flood storage capacity providing sufficient hydrology so the soils are inundated or saturated for 14

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consecutive days of the growing season as determined by the installation of groundwater table monitoring wells per the Technical Standards for Water-Table Monitoring of Potential Wetland Sites.

- g) The wetland mitigation site must be self-sustaining after establishment of the approved permanent vegetation.
  - h) Wetlands shall exhibit trending characteristics toward reference wetland standards for the following variables utilized in the Hydrogeomorphic Approach (HGM) for the Kentucky Western Coal Field Physiographic Province: "O" horizon biomass, water table depth, and overbank flooding frequency.
  - i) The wetland mitigation site must be free the following exotic species: *Lythrum salicaria* (purple loosestrife), *Phragmites australis* (common reed) and *Myriophyllum spicatum* (water milfoil).
  - j) The combined surface area coverage of reed canary grass (*Phalaris arundinacea*) and cattail (*Typha spp.*) shall not cover more than 15% of the mitigation wetland.
  - k) At the end of monitoring, 70% of ground cover will be the planted species; of that no one species will comprise more than 40% of that final cover, for herbaceous plantings. A minimum of 5 species shall be selected for initial plantings to ensure species diversity.
  - l) The woody species will be planted on a per acre basis to meet the total planting rates listed in the Wetland Seeding and Planting Stock Summary Table, with no one planted species making up more than 25% of the surviving planted stock. A minimum of 5 woody species shall be selected and no one species will make up more than 20% of the initial plantings to assure diversity.
  - m) Alternate site appropriate species may be substituted dependent on nursery availability and prior IDEM approval.
  - n) Monitoring shall not begin until planted trees are a minimum of 30" tall.
  - o) Any additional success criteria set forth in the onsite mitigation plan.
- 8) Ensure that the offsite mitigation wetlands meets all of the following success criteria for two consecutive years prior to the release of the performance bond required by 312 IAC 25-5:
- a) The offsite mitigation wetlands consist of 207 acres of forested wetland.
  - b) The final tree success standard for the wetland mitigation will be at least 50% survivability of the initial planting rate of 300 trees per acre (~150 trees/acre). At the release of wetland monitoring, 50% of the surviving 50% initial planting rate (~75 trees/acre) will have a minimum height of 15'.
  - c) No one species shall make up more than 25% of the surviving plant stock.
  - d) All vegetation present in the wetland mitigation area will meet the current federal delineation manual for hydrophetic vegetation.
  - e) The soils in the wetland mitigation areas must exhibit hydric conditions that must be sufficient to meet the criteria of wetland determination per the 1987

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U. S. Army Corps of Engineers Wetland Delineation Manual and the Midwest Regional Supplement.

- f) The mitigation wetlands must have flood storage capacity providing sufficient hydrology so the soils are inundated or saturated for 14 consecutive days of the growing season as determined by the installation of groundwater table monitoring wells per the Technical Standards for Water-Table Monitoring of Potential Wetland Sites.
  - g) The wetland mitigation site must be self-sustaining after establishment of the approved permanent vegetation.
  - h) Wetlands shall exhibit trending characteristics toward reference wetland standards for the following variables utilized in the Hydrogeomorphic Approach (HGM) for the Kentucky Western Coal Field Physiographic Province: "O" horizon biomass, water table depth, and overbank flooding frequency.
  - i) The wetland mitigation site must be free the following exotic species: *Lythrum salicaria* (purple loosestrife), *Phragmites australis* (common reed) and *Myriophyllum spicatum* (water milfoil).
  - j) The combined surface area coverage of reed canary grass (*Phalaris arundinacea*) and cattail (*Typha spp.*) shall not cover more than 15% of the mitigation wetland.
  - k) At the end of monitoring, 70% of ground cover will be the planted species; of that no one species will comprise more than 40% of that final cover, for herbaceous plantings. A minimum of 5 species shall be selected for initial plantings to ensure species diversity.
  - l) The woody species will be planted on a per acre basis to meet the total planting rates listed in the Wetland Seeding and Planting Stock Summary Table, with no one planted species making up more than 25% of the surviving planted stock. A minimum of 5 woody species shall be selected and no one species shall represent more than 20% of the initial plantings to assure diversity.
  - m) Alternate site appropriate species may be substituted dependent on nursery availability and prior IDEM approval.
  - n) Monitoring shall not begin until planted trees are a minimum of 30" tall.
  - o) Any additional success criteria set forth in the offsite mitigation plan
- 9) Ensure that the onsite mitigation streams meet all of the following success criteria for two consecutive years prior to the release of the performance bond required by 312 IAC 25-5:
- a) The length of mitigation streams must total 128,467 linear feet of ephemeral streams, 252,261 linear feet of intermittent streams, and 1,241 linear feet of perennial streams.
  - b) Establish a minimum 55 foot wide wooded riparian buffer on each side of the natural design ephemeral stream channels.
  - c) Establish a minimum 110 foot wide wooded riparian buffer on each side of the natural design intermittent and perennial stream channels.

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- d) The final success standard for onsite riparian buffers with bare root seedlings must be a minimum of 450 live stems per acre, while the final success standard for riparian buffers with root production type container trees will be 54 live stems per acre. The initial planting will consist of a minimum of 5 native species known to occur in southwestern Indiana to assure diversity.
- e) No one species shall make up more than 25% of the planted surviving plant stock.
- f) Rosgen Level II and III characteristics shall be measured to ensure the development of stable channels for the appropriate slope and drainage area within the watershed as outlined in the Rosgen Channel Morphology Matrix table in Section 1 for the parameters.
- g) The mitigation streams must be self sustaining after the establishment of the approved permanent vegetation.
- h) The mitigation streams must meet the definition of a jurisdictional stream and have a discernable bed and bank.
- i) At the request of monitoring, the natural channel stream mitigation must generate a USEPA RBP score equal to or greater than: 110 Ephemeral Streams, 115 Intermittent Streams and 120 Perennial Streams.
- j) You must demonstrate a no net loss of biological integrity compared to pre-mining assessment for macro invertebrates.
- k) At the end of monitoring, 70% of ground cover will be the planted herbaceous species; of that no one species will comprise more than 40% of that final cover, for herbaceous plantings. A minimum of 5 species shall be selected for initial plantings to ensure species diversity.
- l) The woody species will be planted on a per acre basis to meet the total planting rates listed in the Wetland Seeding and Planting Stock Summary Table, with no one planted species making up more than 25% of the surviving planted stock. A minimum of 5 woody species shall be selected and no one species shall represent more than 20% of the initial planting to assure diversity.
- m) Monitoring shall not begin until 80% of the trees have been planted and are a minimum of 30" tall.
- n) The herbaceous plantings must provide adequate ground cover to protect from erosion and must be monitored and maintained on an as-needed basis.
- o) Alternate site appropriate species may be substituted dependent on nursery availability and IDEM approval.
- p) You must submit a final woody species planting list to the IDEM for prior review and approval.
- q) The success standard for onsite mitigation must be at least 80% survivability of the initial planting rate.
- r) At release of vegetative monitoring, 50% of the surviving 80% initial planting rate (~120 trees/acre) must have a minimum height of 15'.

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- s) Install all proposed in stream structures such as root wads, log vane/j-hook vane structures, cross vanes, and woody debris, as proposed in the submitted mitigation plan.
  - t) All installed in stream structures must be stable and not showing signs of instability.
  - u) Any additional success criteria set forth in the onsite mitigation plan.
- 10) Ensure that the offsite mitigation streams meet all of the following success criteria for two consecutive years prior to the release of the performance bond required by 312 IAC 25-5:
  - a) The flow must be restored to 14,450 linear feet of the paleochannel of Busseron Creek.
  - b) Enhance the 11,056 linear feet of the dredged Busseron Creek.
  - c) Create 3,500 linear feet of tributaries to the paleochannel of Busseron Creek.
  - d) Rosgen Level II and III characteristics must be measured to ensure the development of stable channels for the appropriate slope and draining area within the watershed as outlined in the Rosgen Channel Morphology Matrix table in Section 1 for the parameters.
  - e) The enhanced and created streams must be self-sustaining after the establishment of the approved permanent vegetation.
  - f) The mitigation streams must meet the definition of a jurisdictional stream and have a discernable bed and bank.
  - g) You must demonstrate a no net loss of biological integrity compared to pre-mining assessment for macro invertebrates.
  - h) Alternate site appropriate species may be substituted dependent on nursery availability and IDEM approval.
  - i) You must submit a final woody species planting list to the IDEM for prior review and approval.
  - j) Install all proposed in stream structures such as root wads, log vane/j-hook vane structures, cross vanes, and woody debris, as proposed in the submitted mitigation plan.
  - k) All installed in stream structures must be stable and not showing signs of instability.
  - l) Establish the wooded riparian buffers as outlined in the approved mitigation plan.
  - m) Any additional success criteria set forth in the offsite mitigation plan.
- 11) Create the 27 acres of upland forested buffer adjacent to the wetland mitigation area by planting hard-mast tree species as proposed in the submitted mitigation plan.
- 12) For areas designated pursuant to 312 IAC 25-4-29 and 312 IAC 25-6-46, avoid clearing any trees that are suitable habitat for the federally endangered Indiana Bat (*Myotis sodalis*) within the project boundaries during April 1-October 1.

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- 13) Implement affected area drainage control measures consistent with the requirements of 312 IAC 25-6-16 and 17.
- 14) Stabilize all disturbed areas upon completion of land disturbing activities consistent with the requirements of 312 IAC 25-6-51.
- 15) Notify this office of any changes to ensure that the project is in compliance with the Section 401 Water Quality Certification. Any changes to project impacts and/or mitigation requirements outside of this approved Section 401 Water Quality Certification will require IDEM review and a potential permit modification.
- 16) Notify this office of the bond release site inspection and meeting for any bond releases under IC 14-34 that occur prior to successful attainment of the requirements for release of this certification as described in Project Specified Condition No. 5.

This certification does not relieve the recipient of the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person. You may wish to contact the Indiana Department of Natural Resources at 317-232-4160 (toll free at 877-928-3755) concerning the possible requirement of natural freshwater lake or floodway permits. In addition, you may wish to contact IDEM's Stormwater Permits Section at 317-233-1864 concerning the possible need for a 327 IAC 15-5 (Rule 5) permit if you plan to disturb greater than one (1) acre of soil during construction.

This certification does not:

- (1) authorize impacts or activities outside the scope of this certification;
- (2) authorize any injury to persons or private property or invasion of other private rights, or any infringement of federal, state or local laws or regulations;
- (3) convey any property rights of any sort, or any exclusive privileges;
- (4) preempt any duty to obtain federal, state or local permits or authorizations required by law for the execution of the project or related activities; or
- (5) authorize changes in the plan design detailed in the application.

Failure to comply with the terms and conditions of this Section 401 Water Quality Certification may result in enforcement action against the recipient of the certification. If an enforcement action is pursued, the recipient of the certification could be assessed up to \$25,000 per day in civil penalties. The recipient of the certification may also be subject to criminal liability if it is determined that the Section 401 Water Quality Certification was violated willfully or negligently.

This certification is effective eighteen (18) days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18-day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the certification within the scope of the petition for stay is stayed

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for fifteen (15) days, unless or until an Environmental Law Judge further stays the certification in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

1. You must petition for review in writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
2. You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication  
100 North Senate Avenue  
IGCN Room N1049  
Indianapolis, IN 46204

3. You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the certification, decision, or other order for which you seek review by number, name of the applicant, location, or date of this notice will expedite review of the petition.

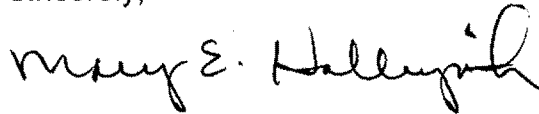
Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings, hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from OEA.

If you have procedural questions regarding filing a petition for review you may contact the Office of Environmental Adjudication at 317-232-8591.

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If you have any questions about this certification, please contact David Carr, Project Manager, of my staff at 317-234-6350, or by e-mail at [dacarr@idem.IN.gov](mailto:dacarr@idem.IN.gov) or you may contact the Office of Water Quality through the IDEM Environmental Helpline (1-800-451-6027).

Sincerely,

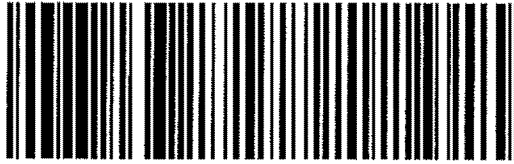
A handwritten signature in black ink, appearing to read "Mary E. Hollingsworth". The signature is fluid and cursive, with the first name "Mary" and last name "Hollingsworth" clearly distinguishable.

Mary E. Hollingsworth, Branch Chief  
Surface Water, Operations & Enforcement Branch  
Office of Water Quality

cc: George DeLancey, USACE-Newburgh Regulatory Office  
Scott Pruitt, USFWS  
Ramona Briggeman, IDNR-Division of Reclamation, Jasonville, IN



IDEM  
Karla Kindrick  
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